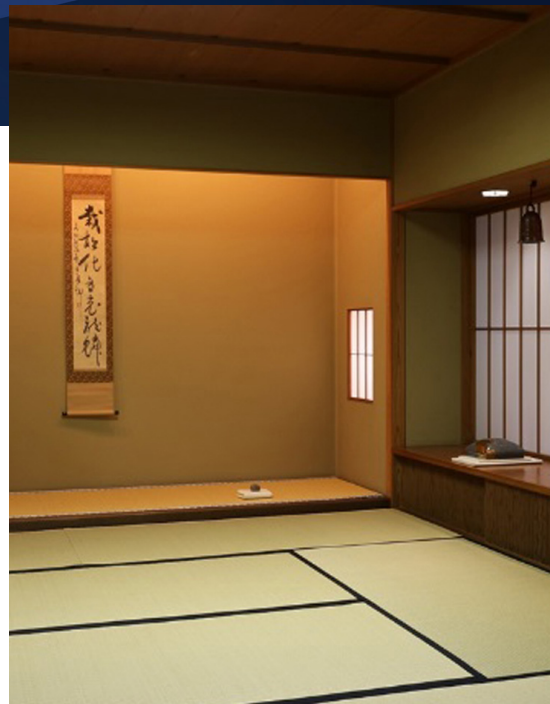


## Use Case: Bluetooth Data Loggers Streamline Museum Environmental Monitoring

### Problem

Responsible for the preservation of valuable artworks that include paintings and East Asian ceramics, the staff at Tokyo's Idemitsu Museum of Arts has long relied on temperature and relative humidity (RH) data to help maintain optimal environmental conditions in the museum's exhibit spaces and its separately located storage warehouse. Traditionally, the museum used analog equipment such as hygrographs to monitor conditions, then later transitioned to portable data loggers that delivered more accurate measurements and better management of data files. However, the data collection task was still somewhat laborious and time-consuming, plus it required having to open climate-controlled display cases to remove the loggers when downloading data.



### Solution

To streamline the monitoring process, museum staff turned to [HOBO MX1101 Temp/RH data loggers](#). These easy-to-deploy, battery-operated, Bluetooth-enabled loggers work with a mobile device or Windows laptop running Onset's free [HOBObconnect app](#), letting users configure the logger and wirelessly download data when within a 100-foot range. Users also have the option to add an [MX Gateway](#) for IoT remote monitoring with access to data in the [HOBOLink](#) cloud software platform, as well as text and/or email alarm notifications if conditions exceed set thresholds. Twenty HOBO MX1101 loggers were deployed throughout the Idemitsu Museum's galleries and display cases, and 15 loggers were deployed in its storage warehouse.

## Results

Since deploying the HOBO MX1101 loggers, continuous indoor environmental monitoring at the museum is more efficient and convenient than ever before. With wireless data download capability, museum staff can now easily retrieve data without disturbing the environment of valuable assets housed within display cases. They no longer have to shut off the alarm system before entering the Japanese Team Room exhibit area to collect data because they can now download the data wirelessly from 100 feet away. Plus, the compact, lightweight design of the HOBO MX1101 loggers easily lends itself to monitoring temp/RH conditions of artworks being transported to and from the museum's storage facility. Overall, the Bluetooth monitoring solution has streamlined data collection and management, ensuring preservation of the museum's valuable assets for visitors to enjoy now and well into the future.

*Setting up and reading out the loggers used to take an hour, but now we can finish this work in 15 minutes.*

*-Idemitsu Museum of Arts representative*

## Products Used

Product	How it was used
<a href="#">HOBO MX1101 Temp/RH Data Logger</a>	To measure temperature and relative humidity data in museum exhibit spaces, display cases, and warehouse
<a href="#">HOBOconnect Monitoring App</a>	To wirelessly configure loggers and download data when within a 100-foot range

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